

PATENT SPECIFICATION

DRAWINGS ATTACHED

Inventor: FREDERICK WALTON GRAY

990.705



990.705

Date of filing Complete Specification Dec. 5, 1963.

Application Date Oct. 5, 1962.

No. 37799162.

Complete Specification Published April 28, 1965.

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Index at acceptance:—F4 R(3D4P, 4B17A); A4 B(3D, 5AX)

Int. Cl.:—F 21 b//A 47 g

COMPLETE SPECIFICATION

Improvements in and relating to Electric Lamps

We, GRAY & CAMPING LIMITED, a British corporate body, of Martins Bank Chambers, 48 Old Christchurch Road, Bournemouth, Hampshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to electric lamps, and aims at providing a lamp suitable for use in various orientations and for various purposes, but more especially as a portable inspection lamp convenient in automobile and other engineering work.

The invention consists in an electric lamp comprising at its base a permanent magnet with a flat undersurface of substantial area, to which base is rigidly attached an upstanding post-like support or standard on which is mounted an electric lamp bulb holder.

The base may be provided with a cover in which may be mounted switch means, if desired, and other electrical components. The support is preferably of a semi-rigid flexible form which can be bent to any desired shape in order to hold the lamp in a selected position, and direct light from it to a desired area.

The invention will be clearly understood from the following description of forms, (given, however, merely by way of example) which it may assume, and this description will be more readily followed by reference to the drawings accompanying the provisional specification of this invention wherein

Figure 1 represents in side elevation, partly in section, an electric lamp in accordance with the invention: and

Figure 2 represents a similar view of another form of lamp in accordance with the invention:

and with further reference to the additional drawings herewith wherein

Figures 3, 4 and 5 are respectively a side elevational view and an enlarged side-sectional view viewed from mutually perpendicular directions, and the separated components of a swivel member which may be incorporated in a lamp according to the invention: and

Figure 6 is the diagram of a circuit in which the bulb of a lamp in accordance with the invention may be incorporated.

In carrying the invention into effect in one convenient manner as shown in Figures 1 and 2 of the aforesaid drawings, an electric lamp comprises a flat cylindrical base 1 formed of a permanent magnet magnetised in a direction parallel to its axis. This base may be laminated, or its upper surface layered, as illustrated, and centrally from its upper surface has an integral, upstanding, solid, externally threaded boss or peg 2, on which is screwed a sleeve 3, also internally threaded at its upper end to receive the screw-threaded end of a lamp support 4. A dish-shaped metal cover 5 has a central aperture which registers with the sleeve 3 when the cover is fitted on to the base 1, and the support 4, when screwed into the sleeve, holds this cover 5 in position.

The support 4 is of hollow tubular form and preferably flexible but semi-rigid, and may be formed of coiled brass strip with a covering of a synthetic resin, such as polyvinyl chloride. To its upper end is fitted a lamp holder 6 of conventional type to receive a reflector 7 (e.g. of spun aluminium alloy) and a lamp bulb 8.

In the side of the cover 5 is fitted a nylon strain retaining bush 9 through which passes the electric supply cable 10. In the top of the cover 5 may be provided a double-pole switch 11 in circuit with one of the

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live leads of the cable 10, and both the live leads run through the support 4 to be connected to the contacts of the lamp holder 6. The earthing lead of the cable 10 is connected to a metal lug 12 held down round the boss 2 by the sleeve 3.

In Figure 2 of the aforesaid drawings is illustrated a vehicle inspection lamp having the base members 1, 2, 3, 5, 9 and 10 substantially identical with those described above with reference to Figure 1, but in this case the support 4 may be rigid, and the holder 6 may carry a low-wattage lamp 8, protected by a wire cage 13. Since this lamp is intended to receive power from vehicle batteries the cable 10 may have only two leads, and the lug 12 be omitted. The cover 5 may, or may not, carry a switch 14, (which as shown is of the throw-over on-off type, but may alternatively be the same as the double-pole switch 11).

Yet another form of lamp according to the invention, intended for low-voltage bulbs, may be substantially identical with that shown in Figure 1, but may incorporate a transformer in circuit with the live supply leads to reduce the mains or other high voltage supply to an operating value of say, 12 volts for the lamp bulb.

The remote end of the cable 10 is connected to a suitable three-pin plug (Figure 1), or two-pin plug (Figure 2) or in the latter case to clips or the like for detachable connection to the terminals of a vehicle battery. The reflector 7 may be of any desired shape.

In all forms of lamp described above the magnetic base 1 is placed on any suitable steel or other magnetically active part of the body or chassis of a vehicle, or of engineering equipment, and is held thereto by the magnetic forces. The support 4 can when flexible be bent, as desired, to bring the lamp 8 and reflector 7 to a desired position for directing light as required.

In any form of lamp in accordance with the invention the lamp holder 6 may be mounted in a swivel head allowing the lamp bulb to be adjusted to any desired inclination irrespective of any adjustment of the support 4 available. A suitable form of swivel head is illustrated in Figures 3-5 of the accompanying drawings and comprises two half-tube members 15, 16 held together by a screw 17. The elements 15, 16 have internal grooves 18 which engage a rib 19 of a tube 20 round which the elements 15, 16 are fitted. The tube 20 is internally screw threaded to engage an externally threaded tube, e.g. at the top of the support 4. The elements 15, 16, held together, are rotatable as a unit about the tube 20. The upper edges of the elements 15, 16 are toothed, as at 21, to grip between them

a ring or disc 22 which may be toothed as at 23. A screw 24 urges together the ends of the elements 15, 16 so that the toothed edges grip the ring 22, but can be released to allow rotational adjustment of the ring 22, and again tightened for clamping. The ring 22 has a screw threaded projection 25 on which can be fitted the lamp holder 6.

In any lamp in accordance with the invention the bulb circuit may include switch means and other components allowing, at will, a steady light or a flashing light from the bulb. A convenient circuit is shown in Figure 6, and incorporates a thermal flasher e.g. a contact-engaging bi-metallic strip 26 in series with the bulb 8, and switch means 27 movable into contact with terminals 28 (where the flasher 26 is short-circuited and the bulb 8 gives a steady light), or with terminals 29 (where the flasher 26 is brought into circuit with the bulb 8, and periodically makes and breaks the circuit, thus providing a flashing light at the bulb 8).

It should be understood that the invention is not limited solely to the details of the forms described above, which may be modified, in order to meet various conditions and requirements encountered, without departing from the scope of the invention as specified in the appendant claims.

WHAT WE CLAIM IS:—

1. An electric lamp comprising at its base a permanent magnet with a flat undersurface of substantial area, to which base is rigidly attached an upstanding post-like support or standard on which is mounted an electric lamp bulb holder.
2. A lamp as claimed in Claim 1 wherein the post-like support or standard is attached directly to the base at its lower end, and at its upper end carries the bulb holder.
3. A lamp as claimed in Claim 1 or 2 wherein the post-like support or standard is in screw-threaded attachment to the base.
4. A lamp as claimed in Claim 1, 2 or 3 wherein the base comprises an integral upstanding screw-threaded boss to which the post-like support is attached.
5. A lamp as claimed in any of Claims 1-4 wherein the post-like support or standard is of hollow tubular construction.
6. A lamp as claimed in any preceding claim wherein the post-like support or standard is sheathed in insulating material, e.g. a synthetic resin.
7. A lamp as claimed in any preceding claim wherein the post-like support or standard is of flexible, but semi-rigid form allowing it to be distorted in order to locate the lamp-bulb in any desired position.
8. A lamp as claimed in any preceding claim comprising means for detachably con-

necting a reflector or shade in association with the lamp bulb.

5 9. A lamp as claimed in any preceding claim comprising an adjustable swivel head incorporating the lamp holder mounted at the upper end of the post-like support or standard.

10 10. A lamp as claimed in any preceding claim comprising at the lower end of said post-like support or standard an enclosure housing switch means in the lamp bulb circuit.

15 11. A lamp as claimed in Claim 10 comprising press-button means operable from outside said housing enclosure to actuate said switch means.

20 12. A lamp as claimed in Claim 10 or 11 wherein a supply cable passes to said switch means through an insulated aperture in the side wall of said housing enclosure.

25 13. A lamp as claimed in any preceding claim comprising as part of the base a flat, substantially cylindrical metal disc or block magnetised in a direction substantially parallel to its axis.

14. A lamp as claimed in Claim 4, or in any of Claims 5 to 13 when appendant

to Claim 4 wherein said boss is externally screw-threaded and an internally threaded sleeve screwed thereon receives at its other end the externally threaded lower end of said post-like support or standard. 30

15. A lamp as claimed in any preceding claim comprising in circuit with the lamp bulb a flasher device to give flashing light from the bulb when in use. 35

16. A lamp as claimed in Claim 15 comprising switch means movable between positions where respectively the bulb circuit is completed to give a steady light, and the flasher is in circuit with the bulb to give flashing light therefrom. 40

17. An electric lamp with a magnetic base, substantially as described herein with reference to the drawings accompanying the provisional specification or with reference to the accompanying drawings. 45

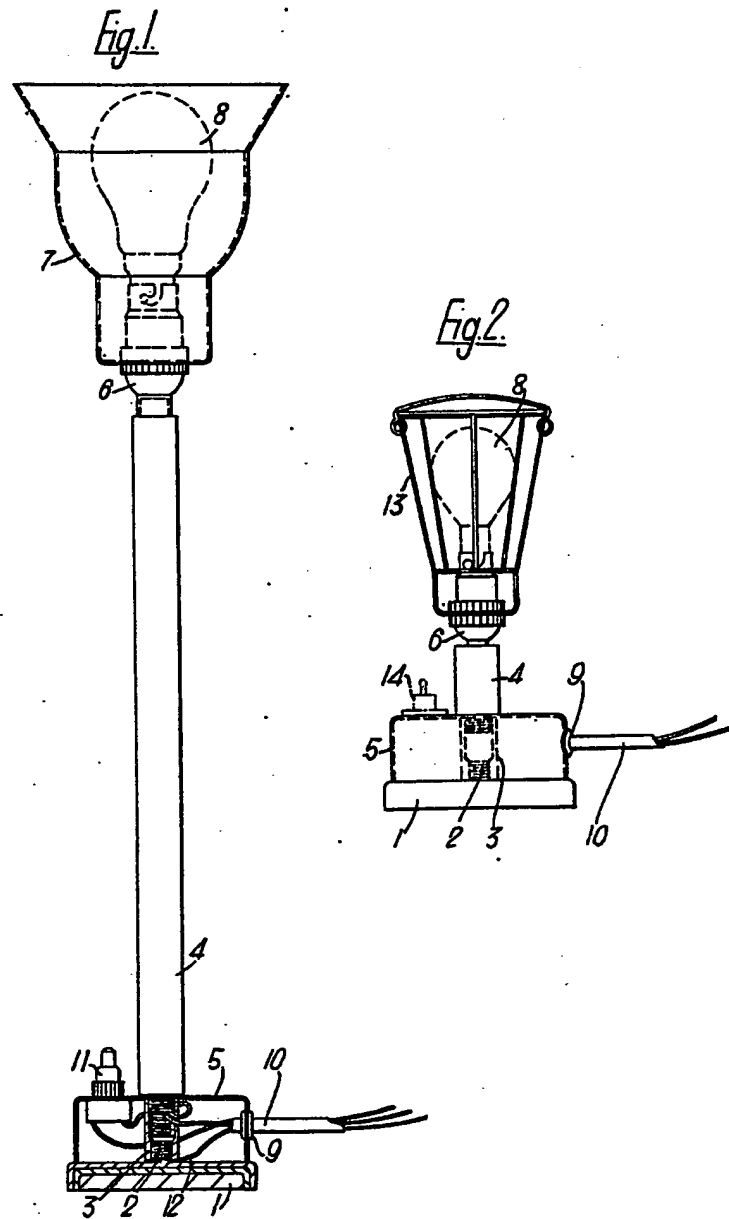
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